

REMARKS

In response to the Office Action mailed April 15, 1999, the applicant requests reconsideration of the above-identified application in view of the following remarks. Claims 1-15 are pending in the application. Claims 1-15 are rejected. Claims 1, 6, and 15 will be amended and new claims 22-36 will be added upon entry of the present amendment. No new matter has been added.

Rejection Under 35 U.S.C. 102

Claims 1 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese patent document 222367 to Oyama. The applicant respectfully traverses.

Claim 1 recites a transistor comprising a source region, a drain region, and a channel region between the source and drain regions in a semiconductor surface layer formed on an underlying insulating portion, and an electrically interconnected gate formed of a silicon carbide material. Oyama discloses a transistor with a gate electrode of silicon carbide, but Oyama does not disclose a transistor in a semiconductor surface layer formed on an underlying insulating portion. The applicant respectfully submits that Oyama does not disclose all of the elements recited in claim 1. Claim 8 is dependent on claim 1. For the reasons stated above, and the limitations in the claim, the applicant respectfully submits that Oyama does not disclose all of the elements recited in claim 8.

Rejection Under 35 U.S.C. 103

Claims 2-7 and 9-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oyama in view of U.S. Patent Number 5,369,040 to Halvis et al. (Halvis) and U.S. Patent Number 5,801,401 to Forbes. The applicant respectfully traverses.

Forbes issued on September 1, 1998, which is after the filing date of the present application. The applicant does not admit that Forbes is prior art, and reserves the right to swear behind Forbes at a later date. However, the applicant believes Forbes is distinguishable from the claimed invention.

Claims 2-7, 9, and 10 are dependent on claim 1. As discussed above, Oyama is deficient in that Oyama does not disclose a transistor in a semiconductor surface layer formed on an underlying insulating portion. Neither Halvis nor Forbes disclose the elements missing in Oyama. Therefore, even as combined, Oyama, Halvis, and Forbes do not disclose or suggest all the limitations recited in claim 1, or in claims 2-7, 9, and 10.

Claim 11 recites an integrated circuit device including, among other elements, a p-channel transistor and an n-channel transistor formed in a single substrate. Oyama is deficient in that Oyama only discloses a single transistor. Neither Halvis nor Forbes disclose the elements missing in Oyama. Therefore, even as combined, Oyama, Halvis, and Forbes do not disclose or suggest all the limitations recited in claim 11, or in claims 12-14 that are dependent on claim 11.

Claim 15 recites a semiconductor memory device including, among other elements, a transistor in a semiconductor surface layer formed on an underlying insulating portion. For the reasons stated above with respect to claims 1-7, 9, and 10, and the limitations in the claim, the applicant respectfully submits that even as combined, Oyama, Halvis, and Forbes do not disclose or suggest all the limitations recited in claim 15.

Furthermore, there is no suggestion in Halvis for the combination put forward by the Examiner. Halvis discloses a charge-coupled device (CCD) photodetector which has transparent gate MOS imaging transistors fabricated from polysilicon with the addition of carbon to allow a greater portion of incident light in the visible spectrum to penetrate the gate. Halvis does not disclose or suggest the use of carbon in a field-effect transistor gate in the absence of incident light.

AMENDMENT AND RESPONSE

Serial Number: 08/903,486

Filing Date: July 29, 1997

Title: SILICON CARBIDE GATE TRANSISTOR AND FABRICATION PROCESS

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Dkt: 303.326US1

CONCLUSION

The applicant respectfully submits that all of the pending claims are in condition for allowance and such action is earnestly solicited. The Examiner is invited to telephone the below-signed attorney at 612-373-6973 to discuss any questions which may remain with respect to the present application.

Respectfully submitted,

LEONARD FORBES ET AL.

By their Representatives,

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7/15/99

By

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to Assistant Commissioner of Patents, Washington, D.C. 20231 on July 15, 1999.

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